

**Amendments to the Drawings:**

Attached is a replacement sheet for Fig. 1 to address the Examiner's Drawing Objection. Specifically, the numbers and letter are uniform and the quality has been improved.

## **REMARKS**

### **I. INFORMATION DISCLOSURE STATEMENT**

Applicants acknowledge the deficiencies in the previously filed Information Disclosure Statement which were pointed out by the Examiner. Attached herein is a supplemental Information Disclosure Statement, which includes a copy of the European Search Report. This report provides the relevance of the cited references to the claims as requested by the examiner.

### **II. STATUS OF SPECIFICATION**

Applicants have replaced the paragraphs beginning at page 5, line 3 and page 5, line 14 with the amended paragraphs included herein in order to correct typographical errors. Applicants have amended Fig. 1 to improve its quality in response to the Examiner's Drawing Objection.

### **III. STATUS OF CLAIMS**

Without prejudice, previously pending claims 1, 10, 11, 20, 22, and 24 have been amended. Claims 1 and 11 were amended to include the language of claims 2, 4, 12 and 14 as well as to consistently recite a two way analog radio. Additionally, claims 1, 11, 20, 22 and 24 were amended to recite a detachable cable for providing an analog signal to/from a two way analog radio. Claims 5 and 15 were amended to refer to the cable recited in claims 1 and 11 and to recite that the cable connects to a plug in the two way analog radio. New claims 25 and 26 were added to recite that a two way analog radio is detachably connected to the cable. Support for these amendments can be found, for instance, in Fig. 1 and on page 4, lines 6-7. Claims 2, 4, 12 and 14 have been cancelled. Dependant Claims 3, 6, 8, 13, 16, 17, 18 were amended to change their dependencies from cancelled claims 2 and 12 to amended independent Claims 1 and 11. No new matter has been added.

#### **IV. MATTERS OF FORMALITY**

In the Office Action, the Examiner objected to claim 1 as containing typographical errors. Applicants have amended claim 1 as suggested by the Examiner. The Examiner is respectfully requested to reconsider and withdraw the objection to claim 1.

The Examiner also rejected claims 1 and 2 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In response, applicants have amended claim 1 and cancelled claim 2 in order to address the Examiner's rejection. Amended claim 1 now recites that an analog signal is generated by the modulator. The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1 and 2 under 35 U.S.C. §112, second paragraph.

#### **V. PRIOR ART REJECTIONS**

In the Office Action, the Examiner rejected Claims 1, 2, 6, 7, 11, 12, 16, 17, 20, 22 and 24 under 35 U.S.C. 102(a) as being anticipated by British publication GB 2388279A (Courtney 279), and, alternatively, as being anticipated by U.S. Patent Application No. 2006/0198520 A1 (Courtney 520). Specifically, the Examiner states that both Courtney 279 and Courtney 520 teach: "A microphone that receives audio signals and converts them into an electrical signal" (Courtney 279, page 6, lines 24-25; Courtney 520, page 3, paragraph 28), and "That the electrical signal is also digital" (Courtney 279, page 6, lines 25; Courtney 520, page 3, paragraph 28).

The Examiner also states that both Courtney 279 and Courtney 520 teach "A Bluetooth transceiver that receives the analog signal" (Courtney 279, page 9, line 1; Courtney 520, page 3, paragraph 31). (However, the language cited by the Examiner contains no disclosure of any type of analog signal or any D/A conversion of the signal that the Examiner had previously stated was digital.)

With regard to both Courtney 279 and Courtney 52, the Examiner further states that “While it does not explicitly state that there is a modulator and [sic] modulator is inherently included in a Bluetooth transceiver” and “While a demodulator is not explicitly stated, a demodulator is inherently part of a Bluetooth transceiver.” It is unclear why the Examiner states that a modulator or demodulator would be inherently included in a Bluetooth device that, as stated above, transmits and receives a digital signal.

In response to the Examiner’s rejections, Applicants respectfully submit that the claims as previously presented and as presently amended are patentably distinct over both Courtney 279 and Courtney 520.

#### **The Claimed Invention**

The claimed invention relates to a microphone unit that interfaces with a two way analog radio to provide or receive encrypted messages from the radio. Specifically, the microphone unit functions to convert voice into encrypted analog signals, or, conversely convert encrypted analog signals to audio signals. The unit detachably connects to the two way radio using common interface means (such as a plug/jack), thereby allowing existing two way radios to be used to transmit and received encrypted signals. Claim 1 relates to a microphone unit that converts voice to an encrypted analog signal for output to the two way radio via the detachable cable, while claim 11 relates to a microphone unit that receives an encrypted analog signal from the two way radio via the detachable cable and converts it to an audio signal. Amended independent Claims 20, 22 and 24 are method claims that recite similar language.

#### **Courtney 279 and 520**

Both Courtney 279 and Courtney 520 disclose a system for facilitating the secure transmission of digital signals (Courtney 279, Abstract Title; Courtney 520 Abstract) between a mobile phone and a Bluetooth transceiver. The Bluetooth transceiver is a part of the headset 14, which communicates wirelessly with the mobile phone 9. In the uplink portion of

the invention, a microphone digitally samples the audio speech signals (Courtney 279, page 8, lines 16-17; Courtney 520, page 3, paragraph 31). The signal output by the microphone remains in digital format as it is processed and then transmitted from a Bluetooth transceiver to a mobile phone. On the downlink portion of the invention, a digital signal is received from a mobile phone by the Bluetooth transceiver and then processed before being converted to an analog signal by a headset speaker. This D/A conversion in the speaker is the only instance of an analog signal in the invention disclosed in Courtney 279 and Courtney 520.

### **Argument**

**1. Neither Courtney 279 nor Courtney 520 anticipates the claimed invention**

Applicants respectfully submit that neither Courtney 279 nor Courtney 520 anticipates any of the claims of the present application, as amended. To anticipate a claim, each element taught in that claim must be found in a single prior art reference.

As currently pending, amended independent claims 1, 11, 20, 22 and 24 each recite that a microphone unit that is connected to a two way analog radio via a detachable cable. The Bluetooth device of Courtney 279 and Courtney 520 is not connected to a two way analog radio via a detachable cable. Rather, the Bluetooth transceiver is integrated in the headset of Courtney 279 and 520.

Additionally, as currently pending, amended independent claims 1, 20 and 24 each recite a microphone that encrypts a digital signal and then converts the digital signal to analog signal for output to the two way analog radio. As is acknowledged by the Examiner in the Office Action, the microphone disclosed in Courtney 279 and Courtney 520 converts an audio signal directly to a digital electric signal. The electric signal in Courtney 279 and Courtney 520 remains in digital format as it is encrypted and then transmitted from a Bluetooth transceiver to a mobile phone. Thus, Courtney 279 and 520 do not disclose a

microphone that converts an audio signal to an analog signal for transmission by a two way analog radio.

Furthermore, claims 1 and 11 each recite a modulator and/or a demodulator, and claims 20, 22 and 24 each recite the modulation and/or demodulation of the signal. The Examiner states that a modulator and a demodulator are inherently part of a Bluetooth transceiver. However, the signals transmitted and received by the Bluetooth transceiver disclosed in Courtney 279 and Courtney 520 are digital signals. There is no disclosure of any modulation or any other type of D/A conversion in the Bluetooth transceivers disclosed in Courtney 279 and Courtney 520. Indeed, it is unclear why the Examiner states that a modulator would be inherently included in a Bluetooth transceiver that transmits and receives digital signals when modulation would create an analog signal.

For the reasons stated above, both Courtney 279 and Courtney 520 fail to disclose Applicants' claimed invention. As such, independent claims 1, 11, 20, 22 and 24 patentably define over Courtney 279 and Courtney 520. Therefore, the Examiner is respectfully requested to reconsider and withdraw the rejection.

**2. There is no reason to modify Courtney 279 or Courtney 520 in accordance with the claimed invention**

Modifying Courtney 279 or Courtney 520 to include a detachable cable connection would destroy the intended purpose of the references. It is well established in U.S. Patent Law that there can be no motivation to modify a reference if that modification would destroy the intended purpose of the reference. The intended purpose of the Bluetooth headset in Courtney 279 and Courtney 520 is to provide a convenient interface between the user and the mobile phone. To this end, the headset attaches to the user and communicates wirelessly with the user's mobile phone. Modifying Courtney 279 or Courtney 520 to have a detachable cable between the microphone unit and the transceiver would require dismantling the headset, separating the microphone from the transceiver, and connecting them instead with a cable. Thus, the headset would be divided into different, discrete

components to communicate with the mobile phone. Clearly, this diminishes the convenience of the device, and, thus, there can be no motivation for such a modification.

## VI. CONCLUSION

The claimed invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider the pending claims. And early Notice of Allowance is earnestly solicited.

Respectfully submitted,

August 23, 2007

Date

/Stephen J. Driscoll/

Registration No. 37,564  
Attorney for Applicant  
The Whitaker Corporation  
4550 New Linden Hill Road  
Suite 140  
Wilmington, DE 19808  
Telephone: (215) 923-4466  
Facsimile: (302) 633-2776